



Ministry of
Northern Development
and Mines

Mines and
Minerals
Division

ONTARIO GEOLOGICAL SURVEY

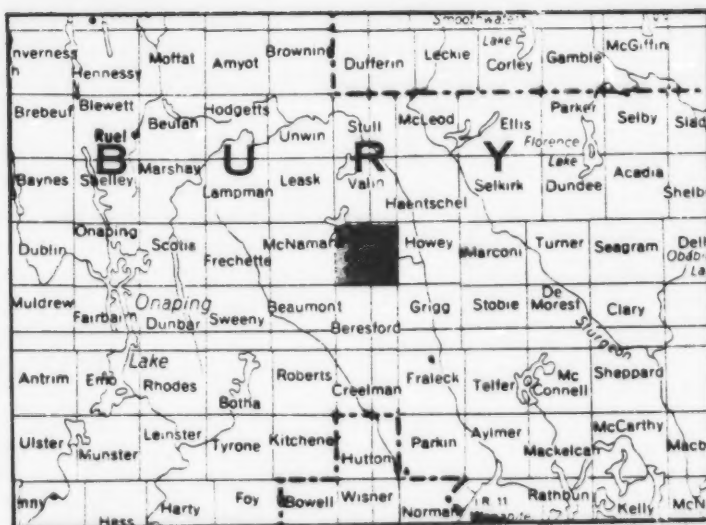
GEOLOGICAL DATA INVENTORY FOLIO

GDIF 414

COTTON TOWNSHIP

DISTRICT OF SUDBURY

Compiled by the Staff of
the Resident Geologist's Office
Sudbury



LOCATION MAP

Scale: 1:1 013 760 or 1 inch to 16 miles

NTS Number

41 P/3

Mining Claim Map Number M-734

STATEMENT: This inventory is unedited. Discrepancies may occur for which the Ontario Geological Survey does not assume liability. Information from this source may be quoted if credit is given. Reference to this inventory should be made as follows:

Ontario Geological Survey

1987: Cotton Township, District of Sudbury, Ontario
Geological Survey, Geological Data Inventory
Folio 414; compiled by the staff of the Resident
Geologist's Office, Sudbury, 24 pages and 2 maps.

Original Compilation by: Adlington, R. A., July, 1987

Date	Page Revised	Revised by

Date	Page Revised	Revised by

COTTON TOWNSHIP



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ACCOMPANYING MAPS

Property Location Map 1

Exploration Data Map 1

Map Scale 1: 31 680 or 1 inch to ½ mile

CONVERSION FACTORS FOR MEASUREMENTS IN ONTARIO GEOLOGICAL SURVEY PUBLICATIONS

If the reader wishes to convert imperial units to SI (metric) units or SI units to imperial units the following multipliers should be used:

CONVERSION FROM SI TO IMPERIAL			CONVERSION FROM IMPERIAL TO SI		
<i>SI Unit</i>	<i>Multiplied by</i>	<i>Gives</i>	<i>Imperial Unit</i>	<i>Multiplied by</i>	<i>Gives</i>
LENGTH					
1 mm	0.039 37	inches	1 inch	25.4	mm
1 cm	0.393 70	inches	1 inch	2.54	cm
1 m	3.280 84	feet	1 foot	0.304 8	m
1 m	0.049 709 7	chains	1 chain	20.116 8	m
1 km	0.621 371	miles (statute)	1 mile (statute)	1.609 344	km
AREA					
1 cm ²	0.155 0	square inches	1 square inch	6.461 6	cm ²
1 m ²	10.763 9	square feet	1 square foot	0.092 903 04	m ²
1 km ²	0.386 10	square miles	1 square mile	2.589 968	km ²
1 ha	2.471 054	acres	1 acre	0.404 686 6	ha
VOLUME					
1 cm ³	0.061 02	cubic inches	1 cubic inch	16.387 064	cm ³
1 m ³	35.314 7	cubic feet	1 cubic foot	0.028 316 85	m ³
1 m ³	1.308 0	cubic yards	1 cubic yard	0.764 555	m ³
CAPACITY					
1 L	1.759 755	pints	1 pint	0.568 261	L
1 L	0.879 877	quarts	1 quart	1.136 522	L
1 L	0.219 969	gallons	1 gallon	4.546 089	L
MASS					
1 g	0.035 273 96	ounces (avdp)	1 ounce (avdp)	28.349 523	g
1 g	0.032 150 75	ounces (troy)	1 ounce (troy)	31.103 476 8	g
1 kg	2.204 62	pounds (avdp)	1 pound (avdp)	0.453 592 37	kg
1 kg	0.001 102 3	tons (short)	1 ton (short)	907.184 74	kg
1 t	1.102 311	tons (short)	1 ton (short)	0.907 184 74	t
1 kg	0.000 984 21	tons (long)	1 ton (long)	1016.046 908 8	kg
1 t	0.984 206 5	tons (long)	1 ton (long)	1.016 046 908 8	t
CONCENTRATION					
1 g/t	0.029 166 6	ounces (troy)/ ton (short)	1 ounce (troy)/ ton (short)	34.285 714 2	g/t
1 g/t	0.583 333 33	pennyweights/ ton (short)	1 pennyweight/ ton (short)	1.714 285 7	g/t

OTHER USEFUL CONVERSION FACTORS

1 ounce (troy)/ton (short)	20.0	pennyweights/ton (short)
1 pennyweight/ton (short)	0.05	ounce (troy)/ton (short)

One gram(g) per tonne is equivalent to one part per million (1 ppm).

NOTE—Conversion factors which are in bold type are exact. The conversion factors have been taken from or have been derived from factors given in the Metric Practice Guide for the Canadian Mining and Metallurgical Industries published by The Mining Association of Canada in co-operation with the Coal Association of Canada.

DATA SOURCES CHECK LIST

NOTE: The following sources have been searched to compile the data for this area. If no reference data was found the appropriate box is marked 'no'; if reference data was found, the box is marked 'yes'.

All reference data found are included in the following pages. If the box is blank, the data source has not yet been searched. If the box is marked N.A., the source item is Not Applicable to this area and therefore not searched.

SOURCES OF DATA		Data	Initial
1	Resident Geologist's Office Files	Yes	R.A.
2	Assessment Files Research Office, Toronto	N.A.	R.A.
3	ODM General Index; 9 Volumes	Yes	R.A.
4	Catalogue of Airborne Geophysical Surveys (ODM)	No	R.A.
5	ODM Mineral Resources Circulars and OGS Mineral Deposits Circulars	Yes	R.A.
6	ODM Industrial Mineral Reports	No	R.A.
7	Bibliography of Post Precambrian Theses - Karrow (ODM MP 1)	No	R.A.
8	Bibliography of Precambrian Theses - Ginn (ODM MP 2)	Yes	R.A.
9	Newspaper Clippings File	No	R.A.
10	GSC Index to Publications	Yes	R.A.
11	OGS Index to Published Maps and Reports - MP 77 and Supplements to MP 77	Yes	R.A.
12	OGS Index Maps	Yes	R.A.
13	Source Mineral Deposit Records (O.G.S.)	Yes	R.A.
14	Author - Subject Articles File	Yes	R.A.
15	Miscellaneous Papers: ODM & OGS	Yes	R.A.
16	ODM Geological Circulars: OGS Study Series	Yes	R.A.
17	ODM Preliminary Reports: ODM Bulletins	No	R.A.
18	ODM - OGS Open File Reports	Yes	R.A.
19	OGS Northern Ontario Engineering Geology Terrain Studies	Yes	R.A.
20	OGS Aggregate Resources Inventory Papers	No	R.A.
21	OGS Mineral Potential Maps	Yes	R.A.
22	Theses on File, Sudbury	Yes	R.A.
23	Aerial Photographs on File, Sudbury	Yes	R.A.

METALS AND MINERALS REFERENCES LIST

Δ anh.	Anhydrite	Δ fu.	Fuchsite	Δ Ni.	Nickel	Δ st.	Stone
Δ ank.	Ankerite	Δ gn.	Galena	Δ Nb.	Niobium	Δ talc.	Talc
Δ anna.	Annabergite	Δ gt.	Garnet	Δ Pd.	Palladium	Δ Te.	Tellurium
Δ ap.	Apatite	Δ gos.	Goethite	Δ peat.	Peat	Δ td.	Tetrahedrite
Δ arg.	Argentite	Δ Au.	Gold	Δ pent.	Pentlandite	Δ th.	Thorite
Δ As.	Arsenic	Δ gf.	Graphite	Δ Pt.	Platinum	Δ Th.	Thorium
Δ ap.	Arenopyrite	Δ gl.	Gravel	Δ py.	Pyrite	Δ thuc.	Thucholite
Δ asb.	Asbestos	Δ gyp.	Gypsum	Δ pyl.	Pyrochlore	Δ ti.	Titanite
Δ ba.	Barite	Δ hem.	Hematite	Δ pyrl.	Pyrolusite	Δ Ti.	Titanium
Δ be.	Beryl	Δ il.	Ilmenite	Δ po.	Pyrrhotite	Δ tour.	Tourmaline
Δ Bi.	Bismuth	Δ Fe.	Iron	Δ q.	Quartz	Δ trap.	Trap rock
Δ bn.	Bornite	Δ IF.	Iron Formation	Δ qcv.	Quartz carbonate vein	Δ W.	Tungsten
Δ brn.	Brannerite	Δ jas.	Jasper	Δ ra.	Radioactive minerals	Δ uran.	Uraninite
Δ bruc.	Brucite	Δ kaol.	Kaolinite (kaolin)	Δ RE.	Rare Earths	Δ U.	Uranium
Δ Cd.	Cadmium	Δ ky.	Kyanite	Δ sd.	Sand	Δ verm.	Vermiculite
Δ calc.	Calcite	Δ Pb.	Lead	Δ sg.	Sand and gravel	Δ Y.	Yttrium
Δ carb.	Carbonate	Δ lim.	Limonite	Δ ss.	Sandstone	Δ Zn.	Zinc
Δ cel.	Celestite	Δ Li.	Lithium	Δ scap.	Scapolite	Δ zr.	Zircon
Δ cs.	Chalcocite	Δ mgst.	Magnesite	Δ shee.	Scheelite	S.	Sulphide
Δ cp.	Chalcopyrite	Δ mag.	Magnetite	Δ serp.	Serpentine	cv.	Covellite
Δ ch.	Chert	Δ mc.	Malachite	Δ sh.	Shale	Sn.	Tin
Δ clay.	Clay	Δ Mn.	Manganese	Δ sid.	Siderite	Ta.	Tantalum
Δ Co.	Cobalt	Δ mb.	Marble	Δ si.	Silica		
Δ cob.	Cobaltite	Δ mar.	Marcasite	Δ Ag.	Silver		
Δ cb.	Columbite	Δ ma.	Marl	Δ sl.	Slate		
Δ Cu.	Copper	Δ mi.	Mica	Δ sm.	Smeltite		
Δ cor.	Corundum	Δ ml.	Millerite	Δ sod.	Sodalite		
Δ dol.	Dolomite	Δ mo.	Molybdenite	Δ spec.	Specularite		
Δ ep.	Epidote	Δ Mo.	Molybdenum	Δ sp.	Sphalerite		
Δ ery.	Erythrite	Δ mon.	Monazite	Δ spd.	Spodumene		
Δ fel.	Feldspar	Δ ne.	Nephelite (nepheline)	Δ staur.	Staurolite		
Δ fl.	Fluorite (fluor spar)	Δ nc.	Nicolite	Δ stib.	Stibnite		

Solid triangles indicate metal and mineral occurrences shown on the accompanying maps.

MINERAL OCCURRENCES			Source Mineral Deposit Record	References in OGS Mineral Deposits Circulars & OGS Industrial Mineral Reports	Additional References and/or Remarks
Map Ref. Letter	Name(s)	Mineralization			
A	Burwash Lake	mag	Fe 1 SMDR 983	MRC 11, pp. 329, 330	O.D.M. GR 143
B	Cotton Township (North Half) Occurrence	mag	--	MRC 11, p. 330	O.D.M. Map P.301
C	McHughen Lake	py,cp,gn,cc, Ag	--	MRC 12, p. 273	Report, Cotton Tp. File 0012

GDIF FORM NO. 2

DRILLHOLE SUMMARY			Company Drillhole Number	Date Drilled	Bearing Azimuth Degrees	Initial Dip of Hole Degrees	Thickness of Overburden Feet	Total Length of Hole Feet	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number	Company Name									
1	Ironco Mining & Smelting		I-1	1964	N79-54E	30	0	491	mag	Fe
2			2	1964	S70W	30	0	459	mag, po, py	Fe
3			3	1964	S70W	35	0	352	mag, po, sp	Fe
4			4	1964	S70W	35	4	386	mag, S	Fe
5			5	1964	S70W	35	48	320	mag, py	Fe
6			6	1964	S20W	35	0	548	mag, py	Fe
7			7	1964	S70W	45	12	503	mag	Fe
8			8	1964	S56-55W	45	8	447	mag	Fe
9			9	1964	S03-33W	45	0	496	mag, cp, po, py	Fe
10			10	1964	S03-39W	45	0	526	mag, S, cp, po, py	Fe
11			11	1964	S03-39E	45	24	499	mag, py, cp	Fe
12	Lowphos Ore Ltd.		1	1955	S	45	14	379	mag, py, po	Fe
13			2	1955	S	36	13	447	mag, po	Fe
14			3	1955	S	45	6	228	mag, po	Fe
15			4	1955	S	30	2	145	mag	Fe
16			5	1955	N	30	2	407	mag, po	Fe
17			6	1955	S	35	2	302	mag, po	Fe
18			7	1955	S	30	0	352	mag	Fe
19			8	1955	S	30	0	223	mag, py, po	Fe
20			9	1955	N	30	23	300	mag, po	Fe
21			10	1955	N	30	10	334	mag	Fe
22			11	1955	N	45	9	309	mag	Fe
23			12	1955	W	30	16	325	mag	Fe
24			13	1955	S	45	7	225	mag	Fe
25			14	1955	E	45	7	356.5	mag	Fe
25			15	1955	E	45	9	402	mag	Fe
25			16	1955	E	45	7	315	mag	Fe
26			17	1955	W	30	7	212	mag	Fe
27			18	1955	N	30	5	303	mag	Fe
28			19	1955	N	30	11	272	mag	Fe
29			20	1955	N	30	12	450	mag, po	Fe
30	21	1955	N	45	12	216	mag	Fe		
31	22	1955	S	45	7.5	203	mag, po, py, mo	Fe		

GDIF FORM NO. 3

DRILLHOLE SUMMARY			Company Drillhole Number	Date Drilled	Bearing Azimuth Degrees	Initial Dip of Hole Degrees	Thickness of Overburden Feet	Total Length of Hole Feet	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number	Company Name									
32	Lowphos Ore (cont'd)		23	1955	S	45	8	325	--	--
33			24	1955	N	45	10	174	--	Fe
34			25	1955	N	45	5	177	mag, S	--
35			26	1955	N	45	16.5	177	--	--
35			27	1955	S	30	27	250	mag	Fe
36			28	1955	W	30	4	206	mag	Fe
37			29	1955	E	30	6	220	mag	Fe
38			30	1955	N60E	45	11	215	mag	Fe
39			31	1955	N60E	30	16	407	mag, py, po	Fe
40			32	1955	N63E	30	4	158	mag	Fe
41			33	1955	S28E	45	19	303	mag	Fe
42			34	1955	S30E	45	8	253	mag	Fe
43			35	1955	N30W	30	0	205	--	Fe
44			36	1955	N30W	45	5	203	mag	Fe
45			37	1955	N30W	45	11	158	--	Fe

DRILLHOLE SUMMARY		Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number	Company Name								

GDIF FORM NO. 3

AIRBORNE GEOPHYSICAL SURVEY DATA				Flight Line Spacing
No.	By For	Type of Survey	Flight Altitude	Flight Line Direction
2	Aeromagnetic Surveys Ltd. M. A. Hanna Co.	Magnetic	?	?

Map Sample Site Reference Number	GEOCHEMICAL SURVEY DATA		By	Reference
	Type of Survey	Analysis For		
1-7	metallurgical sampling	magnetite	Ironco Mining & Smelting Ltd.	Sudbury file Cotton-0010

MISCELLANEOUS DATA

AGE DATING

Site	Method	Material	Reference	Result

NEWSPAPER CLIPPINGS FILE

NOTE: A file of newspaper clippings about the companies listed below, who have worked in this area, is maintained in the Regional/Resident Geologist's Office.

ODM GENERAL INDEX SEARCH

Words searched:

BLANCHARD, E.
BURWASH LAKE
COTTON TP.
HANNA, M. A. CO.
IRONCO IRON & SMELTING

LOWPHOS ORE
MCHUGHEN LAKE GOLD MINING SYNDICATE
MCKENZIE & MANN
SUDBURY NORTHLAND EXPLORATION
WATTS, M.

Index Volume	Listing:	Report Volume	Part	Page
1	BURWASH LAKE, McNamara Tp. Ancient valley, north of Iron ore Map, sketch Rocks around Striae direction	17 6 15 16 6 6 6	 1 1	49 182 15 16,74 170 171 181
2	BURWASH LAKE, Cotton and Valin Tps. Iron formation described	I.O.		205
8	BURWASH CREEK Cotton Tp., Sudbury Dist.	GR106		104
8	BURWASH LAKE Cotton Tp.	GR106 GR108		10,60, 101-109 7
8	BURWASH LAKE PROSPECT Cotton Tp.	MPBP2 MRC11		56 329,330
9	BURWASH CREEK Cotton Tp.	GR143		7,25
9	BURWASH LAKE Cotton Tp.	GR143		6-50
9	BURWASH LAKE DEPOSITS Cotton Tp. report on property	GR143		40
9	BURWASH LAKE IRON FORMATION Cotton Tp. lithology	GR143		41, 45, 46-48
2	COTTON TP., Sudbury District Iron ore. See Burwash 1.			
8	COTTON, FRECHETTE & McNAMARA TPS., SUDBURY DISTRICT summary of field work, 1971 by H. D. Meyn	MP49		72-76

ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page
8	COTTON, MARCONI, TURNER, SEAGRAM, CLARY, DEMOREST & HOWEY TPS., SUDBURY DISTRICT summary of field work, 1969 by H. D. Meyn	MP32		42-45
8	COTTON TP., SUDBURY DISTRICT see also Cotton, Frechette & McNamara Tps. Cotton, Marconi, Turner, Seagram, Clary, DeMorest & Howey Tps. Geology of the Maple Mt. area iron	GR106 GR106 MRC11		101-109 329,330
9	COTTON, FRECHETTE & McNAMARA TPS., SUDBURY DISTRICT copper Geology of the area Report & map 2307 on, 1976 by H. D. Meyn iron sand/gravel/uranium sulphides	GR143 GR143 GR143 GR143 GR143		49, 53 38-48,53 53 48-53
9	HANNA, M. A. CO. Cotton Tp., Sudbury Dist.	GR106		101
9	IRONCO MINING & SMELTING CO. LTD. Cotton Tp., Sudbury Dist.	GR143		38-48
6	LOWPHOS ORE LTD. Capital; officers; operations: (1957) (1958) (1959)	67 68 69	2 2 2	105 74 73
7	LOWPHOS ORE LTD. Officers; operations: (1960) (1961) (1962) (1963)	70 71 72 73		73 78 78 76,77
8	LOWPHOS ORE LTD. Cotton Tp., Timiskaming Dist.	GR106		101
9	LOWPHOS ORE LTD. Cotton Tp., Sudbury Dist.	GR143		39, 40

GDIF FORM NO. 8

COTTON TOWNSHIP

ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page
4	McHUGHEN LAKE GOLD MINING SYNDICATE LTD. Incorporated	51	1	42
9	McHUGHEN, J. J. & BAILEY, ALEX. Cotton Tp., Sudbury Dist.	GR143		50
1	McKENZIE AND MANN Iron mining: Burwash lake	16	1	17

ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page

Author	Date	SELECTED REFERENCES		Reference	Map Scales and/or Report Pages
		Title			
		<u>REGIONAL GEOLOGICAL COMPILATION MAPS</u>			
Card, K. D.	1965	Westree Sheet		O.D.M. Map P.300	1" = 2 miles
Card, K. D., & Lumbers, S. B.	1974-75	Sudbury-Cobalt		O.G.S. Map 2361	1" = 4 miles
Donovan, J. F.	1965	Maple Mountain Sheet		O.D.M. Map P.301	1" = 2 miles
		<u>GEOPHYSICAL MAPS</u>			
		Aeromagnetic Maps			
	1965	Thor Lake, Ontario, 41 P/3		1520 G	1" = 1 mile
	1965	Pilgrim Creek, Ontario, 41 P/8		1513 G	1" = 1 mile
	1965	Gogama, Ontario		7076 G	1" = 4 miles
O.D.M. - G.S.C.	1976	Uranium Reconnaissance Program Airborne Gamma Ray Spectrometer Survey, Gogama		Map 36641 G	1:250,000
O.G.S. - G.S.C.		Bouguer Gravity and Generalized Geological Map of the Gogama - Gowganda Area		O.G.S. Map P.2481	1:100,000
Gupta, V. K.	1981	<u>SURFICIAL, PLEISTOCENE, TERRAIN ENGINEERING</u>			
Boissonneau, A. N.	1968	Glacial History of Northwestern Ontario II. The Timiskaming Algoma Area		Can. Jr. Earth Sci. Vol. 5, No. 1	pp. 97-109
	1965	Algoma, Sudbury, Timiskaming and Nipissing, Surficial Geology		O.D.L. & F. Map S465	1" = 8 miles
Dep't of Energy, Surveys & Mapping Branch	1976	Topographic Map, Pilgrim Creek, 41 P/2			1:50,000

SELECTED REFERENCES			Reference	Map Scales and/or Report Pages
Author	Date	Title		
Gartner, J. F.	1979	N.O.E.G.T.S. Data Base Map, Westree	Map 5022 Map 5023	1:100,000 1:100,000
	1978	N.O.E.G.T.S. Data Base Map, Maple Mountain		
	1979	N.O.E.G.T. Study 88, Westree	OFR 5328	1" = 16 miles
	1978	N.O.E.G.T. Study 89, Maple Mountain		
O.G.S. & Mineral Resources Branch	1982	<u>MINERAL POTENTIAL MAPS</u> Mineral Potential Map of Ontario East Central Sheet	O.G.S. Map P.1514	1:250,000
	1977	Ontario Mineral Potential, Gogama Sheet and part of Ville Marie sheet		
			No data available, June 12, 1987	
Baer, A. J.	1970	<u>GEOLOGICAL REPORTS AND MAPS</u> Symposium on Basins and Geosynclines of the Canadian Shield	G.S.C. 70-40	pp. 143-158
		Preliminary Comparison of the Petrographic and Paleomagnetic Characteristics of Nipissing Diabase Intrusions in Northeastern Ontario		
Buchan, K. L. & Card, K. D.	1985	Geology of the Nipissing-Algonia Line	G.S.C. Current Research, Pt. A, Paper 1A	pp. 131-140
Burwash, E. M.	1897	Metamorphism of the Middle Precambrian (Apehbian) Rocks of the Eastern Southern Province	O.B.M. AR 6	pp. 170,171,181
Card, K. D.	1978		G.S.C. 78-10	pp. 269-282

SELECTED REFERENCES				Map Scales and/or Report Pages
Author	Date	Title	Reference	
Card, K. D., McIlwaine, W. H., and Meyn, H. D.	1973	Geology of the Maple Mountain Area	GR 106	pp. 10, 60, 101- 109
Coleman, A. P.	1901	Iron Ranges of the Lower Huronian	O.B.M. AR 10	pp. 181-212
	1904	Hutton Township Iron Range	O.B.M. AR 13, pt. 1	pp. 216-221
Collins, W. H.	1917	Onaping Map Area	G.S.C. Mem. 95 Map 179 A Map 153 A	pp. 58, 59 1" = 4 miles 1" = 1 mile
Dep't of Mines, Ont.	1923	Report of the Iron Ore Committee	Cotton Tp.	P. 205
Elver, R. B.	1960	Survey of the Canadian Iron Ore Industry During 1959	Min. Info. Bull. MR 45, Min. Res. Div., Dep't Mines & Tech. Surv.	
Geoscience Data Centre	1984	Ontario Mineral Deposit Inventory	OFR 5470	
Kindle, E. D.	1936	Gold Occurrences of Ontario East of Lake Superior	G.S.C. Mem. 192	
Kindle, L. F.	1932	Moose Mountain - Wanapitei Area	O.D.M. AR 41, pt. 4 Map 41 E	1" = 3/4 mile
Leith, C. K.	1903	Moose Mountain Iron Range	B.O.M. AR 13	pp. 318-321
Lindeman, E.	1914	Moose Mountain Iron Bearing District	Mines Br., Ottawa Rept. 303	
Lindeman, E., and Bolton, L. L.	1917	Report on Iron Ore Occurrences in Canada	Rep't 217, Vol. 1 Dep't of Mines, Ottawa	

GDIF FORM NO. 9

SELECTED REFERENCES				Map Scales and/or Report Pages
Author	Date	Title	Reference	
Meyn, H. D.	1972	Cotton Township	O.D.M. Map P.736	1" = 1/4 mile
	1975	Frechette, McNamara and Cotton Townships	O.D.M. Map 2307	1" = 1/4 mile
	1970	Geology of Frechette, McNamara and Cotton Townships	GR 143	
	1973	Geology of Sweeny, Beaumont, and Beresford Townships	GR 180	p. 7
Miller, W. G.	1901	Iron Ores of Nipissing District	B.O.M. AR 10	
O.G.S. & Mineral Resources Branch	1982	Mineral Potential Map of Ontario East Central Sheet Magnetic Compilation Map Geological Compilation Map	OFR 5328	1" = 16 miles 1" = 16 miles 1" = 16 miles
Ont. Ministry of Natural Resources Metallic Minerals Section	1975	Towards an Iron Ore Policy for the Province of Ontario	Map 2198 MPBP 2	p. 56
Quirke, T. T.	1922	Wanapitei Lake Map Area	G.S.C. Summary Report, 1921, pt. D	
Satterly, J.	1977	A Catalogue of the Ontario Localities Represented by the Mineral Collection of the Royal Ontario Museum	O.G.S. MP 70	
Shklanka, R.	1968	Iron Deposits of Ontario	MRC 11	pp. 329, 330
	1969	Copper, Nickel, Lead and Zinc Deposits of Ontario	MRC 12	p. 273
Vos, M. A., et al	1983	Industrial Minerals of Northern Ontario, Parts 1 & 2	OFR 5386	
Vos, M. A., Smith, B. A., Stevenato, R. J.	1981	Industrial Minerals of the Sudbury Area	OFR 5329	

GDIF FORM NO. 9

SELECTED REFERENCES			Reference	Map Scales and/or Report Pages
Author	Date	Title		
Vos, M. A., Smith, V.	1983	Industrial Minerals of Northern Ontario, Supplement 2	OFR 5439	
Yundt, S. E., et al	1983	Industrial Minerals of Ontario <u>JOURNALS, ARTICLES, THESES, TECHNICAL REPORTS</u>	O.G.S. Map P.2591	1:50,000
Bergman, I. A., Shcherbakov, V. I., Gavrilova, L. K.	1980	The Li/Mg Ratio as a Criterion of the Carbonate Nature of the Ore Material in Precambrian Iron Formations	Geochem. Int., Vol. 17, No. 1	pp. 23-38
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Author	Date	Title	Reference	
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GDF FORM NO. 9

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Thachuk, N. M.	1960	The Origin of the Gowganda Banded Argillite B.A.Sc., UT	p. 44

SELECTED REFERENCES			Reference	Map Scales and/or Report Pages
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NOTES AND ADDENDA

AERIAL PHOTOGRAPHS INDEX

Scale 1" = $\frac{1}{4}$ mile

<u>Year</u>	<u>Roll</u>	<u>Line</u>	<u>Number</u>
1959	15	4706	139-146
	15	4705	103-109
	15	4704	61-67
	14	4703	133-140

GDIF FORM NO.10



Ministry of
Northern Development
and Mines

Mines and
Minerals
Division

ONTARIO GEOLOGICAL SURVEY

PROPERTY LOCATION MAP

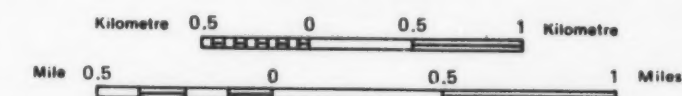
GEOLOGICAL DATA INVENTORY FOLIO 414

(Map 1 of 2)

COTTON TOWNSHIP

DISTRICT OF SUDBURY

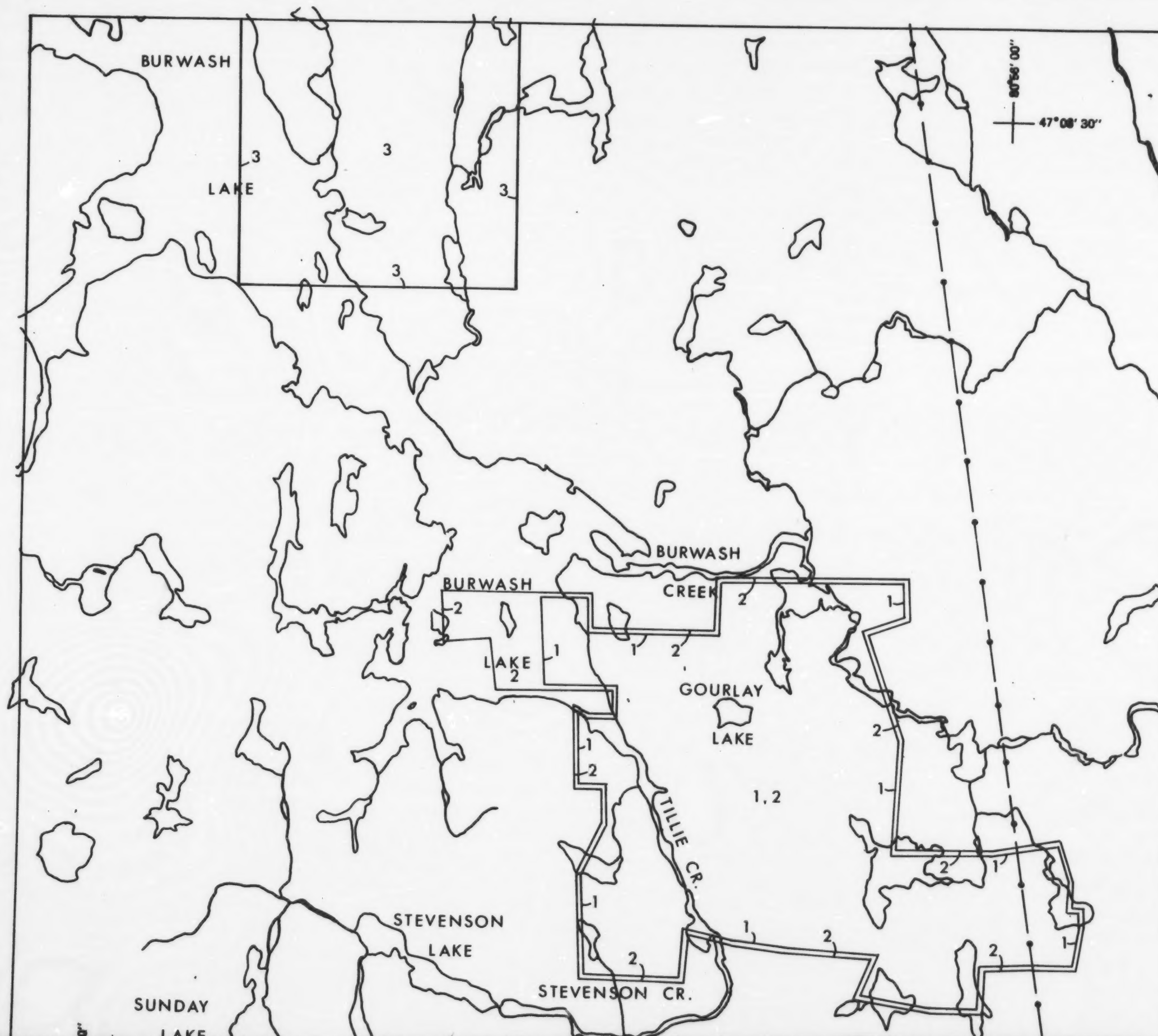
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EXPLORATION DATA FILE AREAS



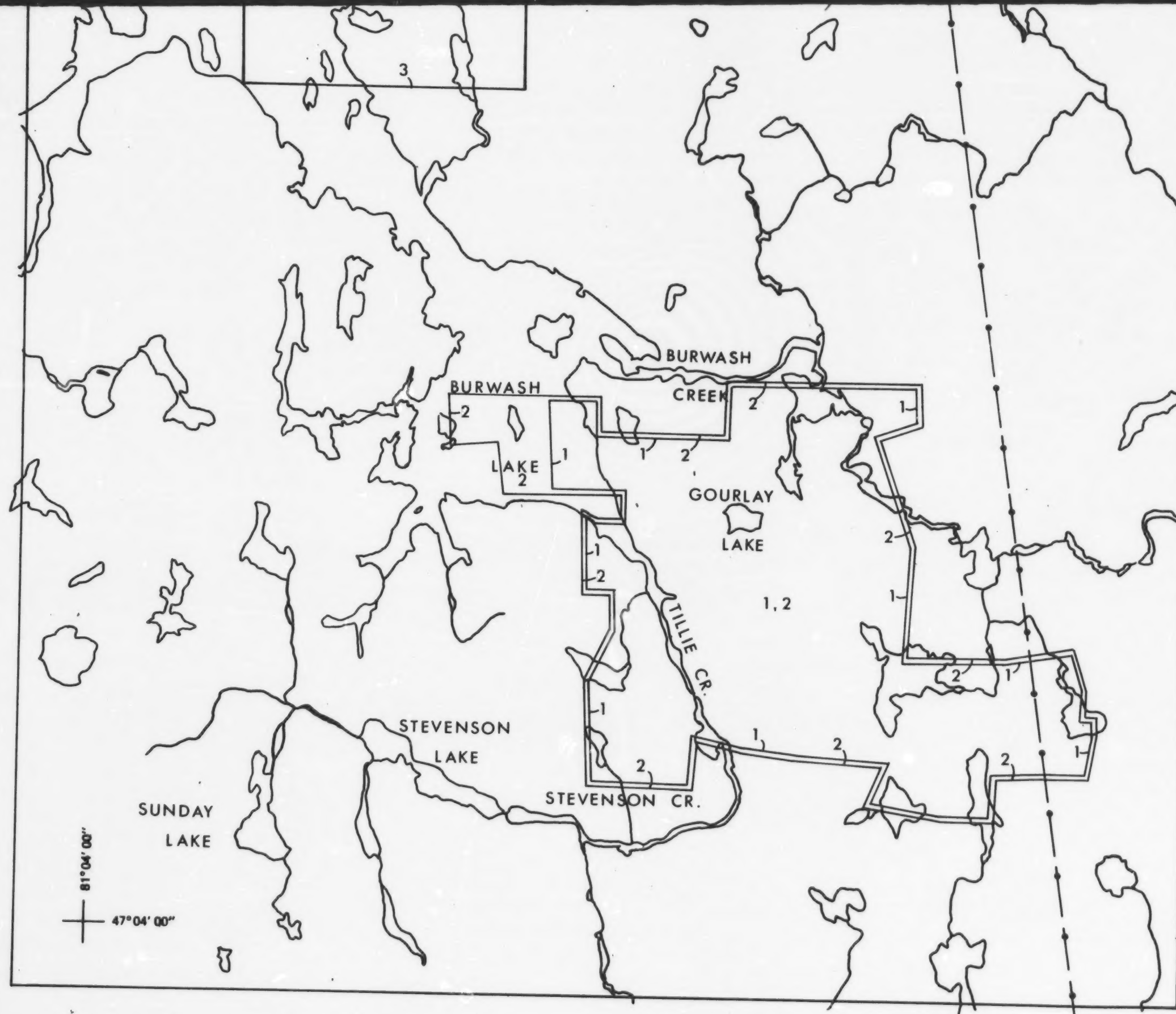
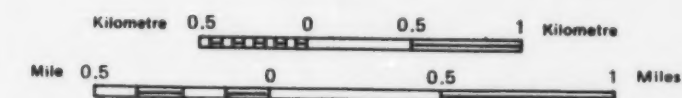
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COTTON TOWNSHIP

DISTRICT OF SUDBURY

Scale 1:31 680

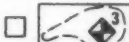


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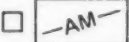
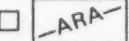
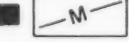
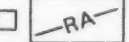
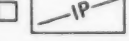
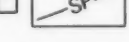
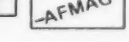
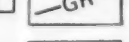
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- Small area exploration.

TYPES OF DATA SHOWN ON THIS MAP

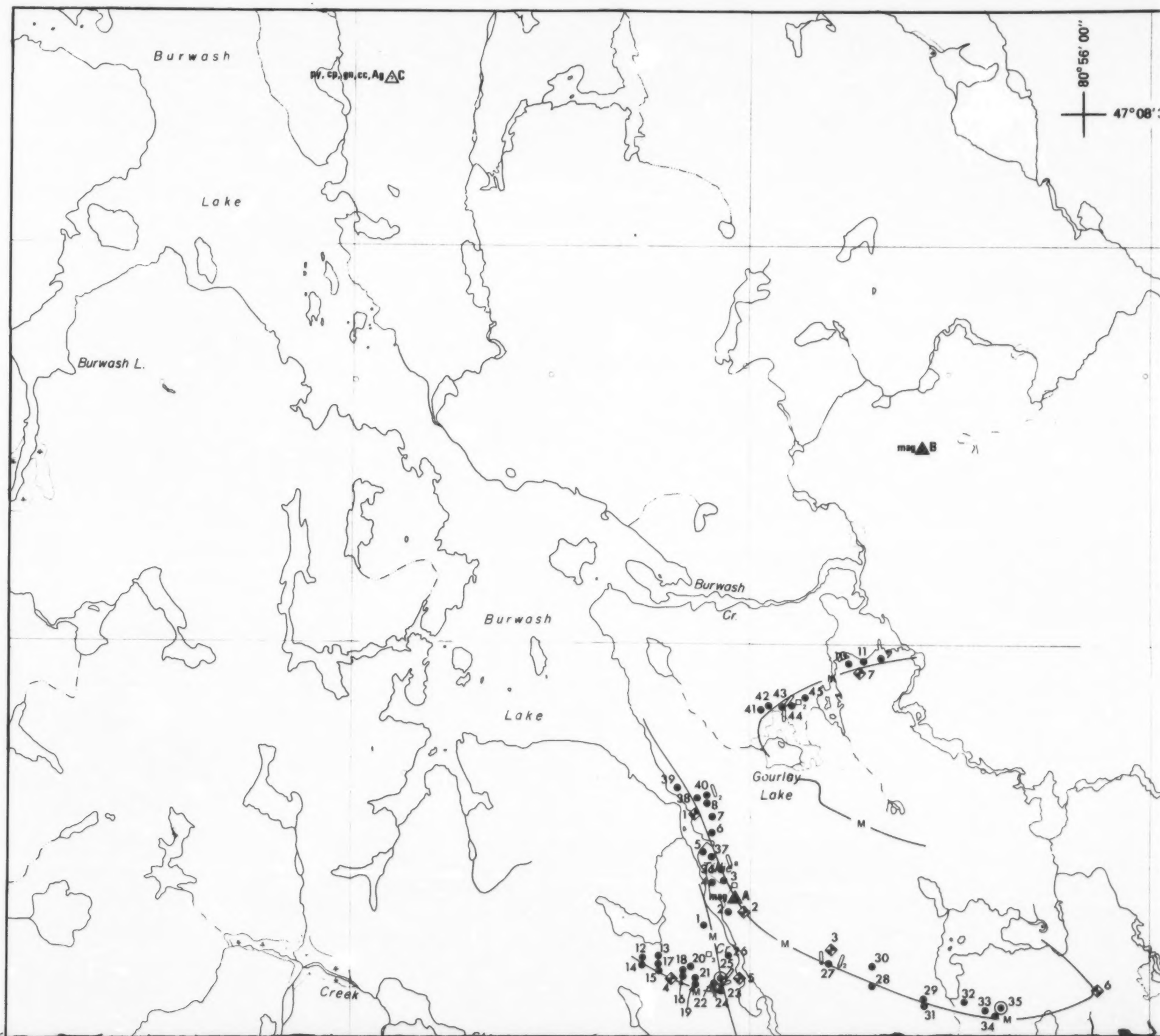
GEOCHEMICAL AND GEOCHRONOLOGICAL DATA

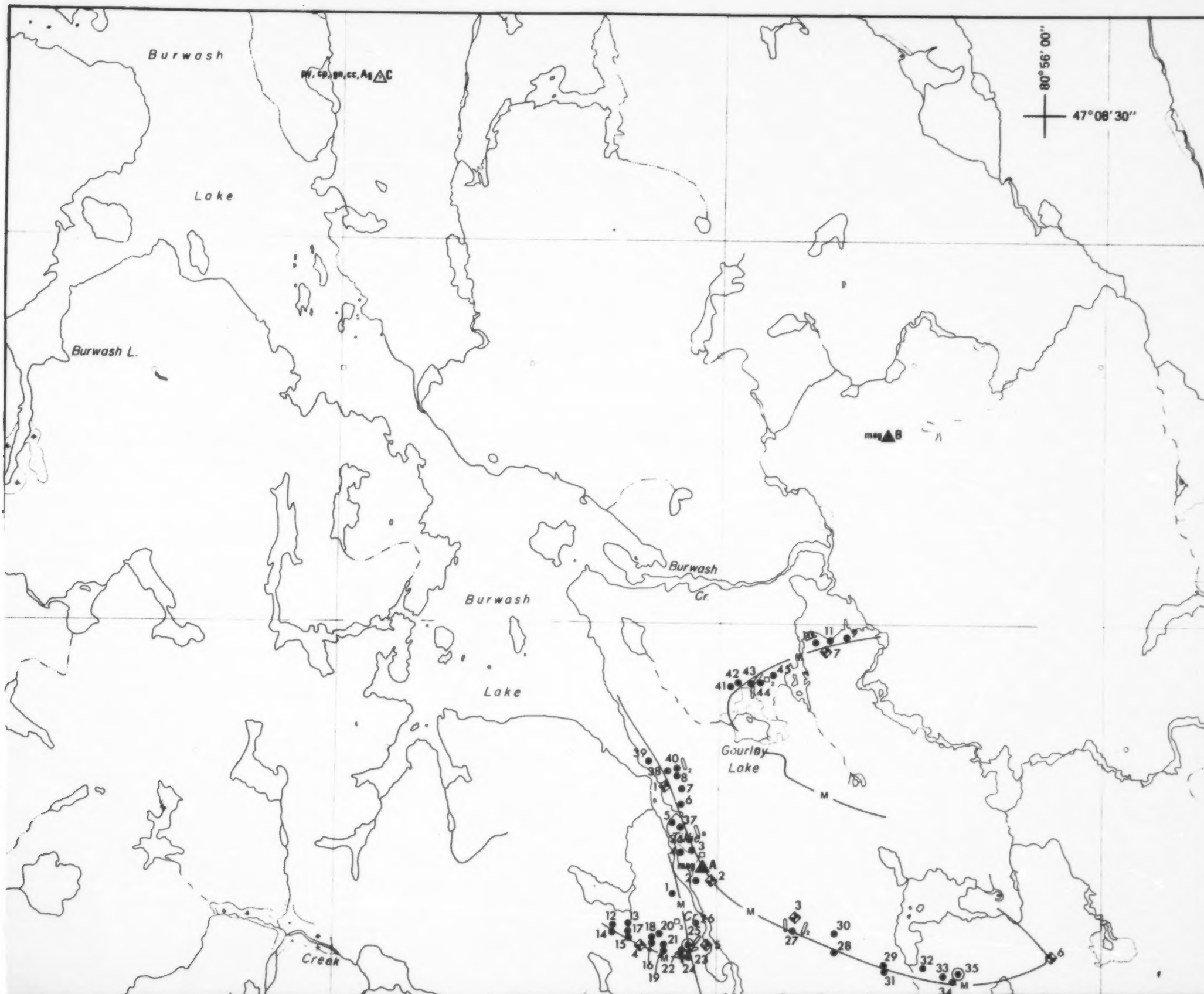
-  Geochemical sample site, with reference number
-  Area of geochemical sampling, with reference number
-  Age dating material sampling site, with reference number

GEOPHYSICAL ANOMALIES

-  Airborne magnetic anomaly
-  Airborne electromagnetic anomaly
Length of anomaly along flight line
-  Airborne electromagnetic anomaly
Location of anomaly along flight line
-  Airborne electromagnetic anomaly
Conductor axis: definite, probable, possible
-  Airborne radiometric anomaly
-  Ground magnetic anomaly
-  Ground electromagnetic anomaly
(VL - Vertical loop; HL - Horizontal loop;
VLF - Very low freq; Turam; JEM -
Crone Em - 16)
-  Ground radiometric anomaly
-  Induced polarization anomaly
-  Self potential anomaly
-  Audio-frequency magnetic anomaly
(total intensity)
-  Resistivity anomaly
-  Gravity anomaly
- 

MISCELLANEOUS DATA





Ministry of
Northern Development
and Mines

Mines and
Minerals
Division

ONTARIO GEOLOGICAL SURVEY

EXPLORATION DATA MAP

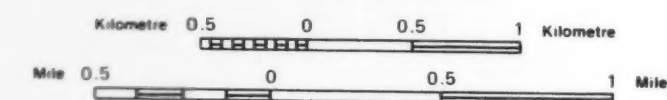
GEOLOGICAL DATA INVENTORY FOLIO 414

(Map 2 of 2)

COTTON TOWNSHIP

DISTRICT OF SUDBURY

Scale 1:31 680



GEOLOGICAL AND MINING SYMBOLS

TYPES OF DATA SHOWN ON THIS MAP

MINERAL OCCURRENCES

- Mineral occurrence at surface, with reference letter
- Mineral occurrence with shaft, depth given with reference letter
- Mineral occurrence reported but exact location uncertain, with reference letter
- Mineralized float with reference letter
- Mineral occurrence at surface, with reference letter

DRILLHOLE

- Location of single drillhole, with reference number
- Location of closely spaced group of drillholes, with reference number

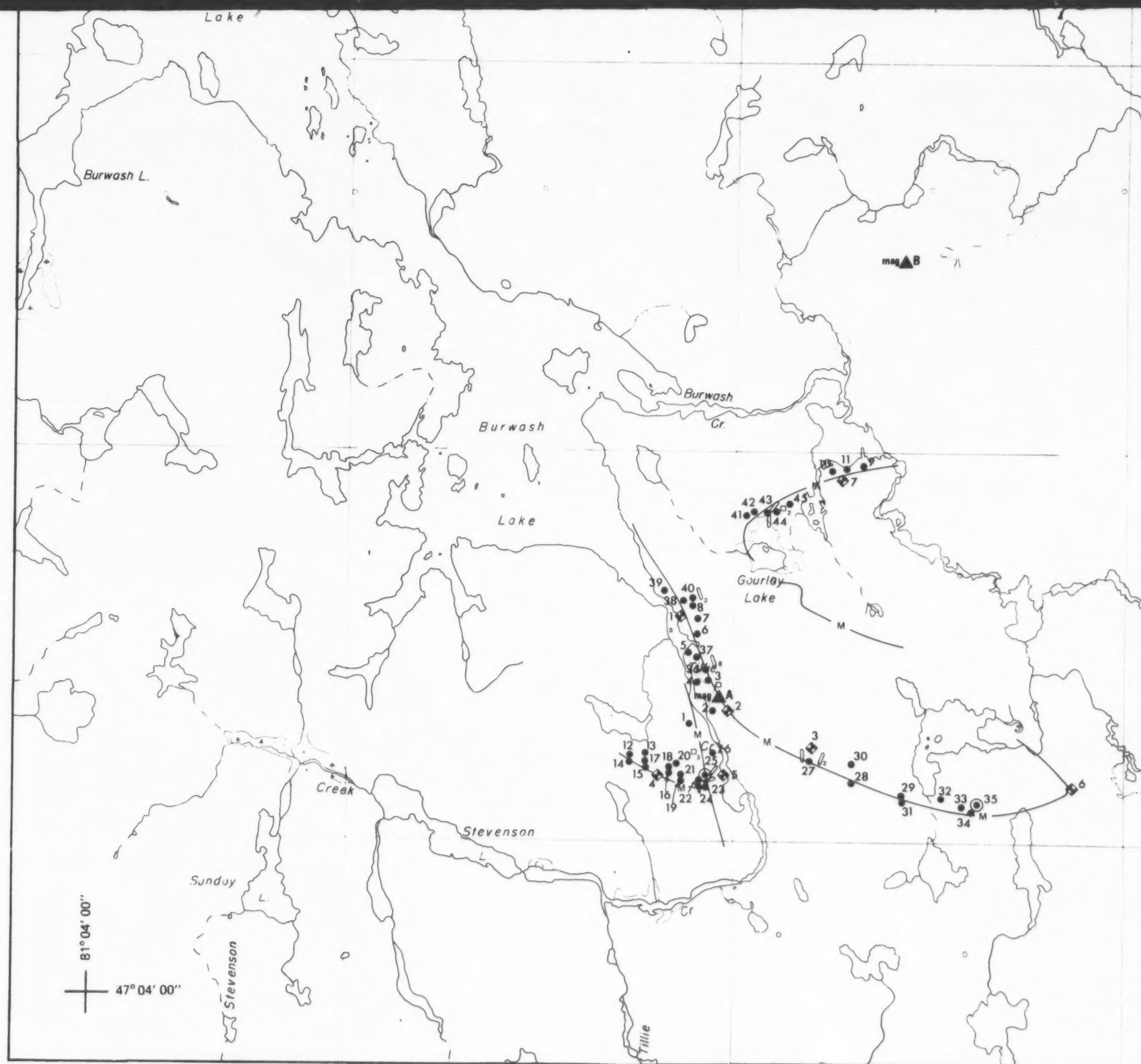
GEOPHYSICAL ANOMALIES

- ☐  Airborne magnetic anomaly
- ☐  Airborne electromagnetic anomaly
Length of anomaly along flight line
- ☐  Airborne electromagnetic anomaly
Location of anomaly along flight line
- ☐  Airborne electromagnetic anomaly
Conductor axis: definite, probable, possible
- ☐  Airborne radiometric anomaly
- ☐  Ground magnetic anomaly
- ☐  Ground electromagnetic anomaly
(VL - Vertical loop; HL - Horizontal loop;
VLF - Very low freq; Turam; JEM -
Crone Em - 16)
- ☐  Ground radiometric anomaly
- ☐  Induced polarization anomaly
- ☐  Self potential anomaly
- ☐  Audio-frequency magnetic anomaly
(total intensity)
- ☐  Resistivity anomaly
- ☐  Gravity anomaly
- ☐ 

MISCELLANEOUS DATA

- | | | | |
|---|----------------|---|---|
| ☒  | Trenching, pit | ☐  | Rock quarry |
| ☐  | Adit | ☐  | Sand and/or gravel pit |
| ☐  | Open pit | ☒  | Number of closely spaced
trenches and pits |
| ☐  | | | |

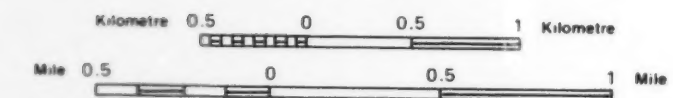
NOTE: Consult the text that accompanies this map for pertinent lists of data, references, and abbreviations.



COTTON TOWNSHIP

DISTRICT OF SUDBURY

Scale 1:31 680

**GEOLOGICAL AND MINING SYMBOLS**

TYPES OF DATA SHOWN ON THIS MAP

MINERAL OCCURRENCES

- Mineral occurrence at surface, with reference letter
- Mineral occurrence with shaft, depth given with reference letter
- Mineral occurrence reported but exact location uncertain, with reference letter
- Mineralized float with reference letter
- Mineral occurrence at surface, with reference letter

DRILLHOLE

- Location of single drillhole, with reference number
- Location of closely spaced group of drillholes, with reference number
- Drillhole, exact location uncertain, with reference number
- Property with underground drillholes in this general area, with reference number
- Property with drillholes which have not been plotted on map, with reference number
- Reverse circulation drillhole; churn drilling, with reference number

Burwash L.

Burwash

Burwash
Cr.

Lake

Gourlay
Lake

Creek

Stevenson

Sunday

Stevenson

Tillie

81°04'00"

47°04'00"